

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1.-2. (Cancelled)

3. (Currently Amended) ~~Echo processing~~ The device according to claim [[2]]27, further including a controller for controlling echo between at least one of the loudspeakers and at least one microphone of the communication device.

4. (Currently Amended) ~~Echo processing~~ The device according to claim [[1]]27 wherein the information received representing at least one broadcasted signal from at least one other communication device was previously weighted by a coefficient representing the distance between a loudspeaker of the said at least one other communication device and the microphone of the communication device.

5. (Currently Amended) ~~Echo processing~~ The device according to claim 4, wherein the signal processing arrangement for modifying the picked up signal is arranged to modify the picked up signal according to the weighted broadcasted signal of at least one other communication device in the reference echo control signal of the communication device.

6. (Cancelled)

7. (Currently Amended) ~~Echo processing~~ The device according to claim [[6]]28, wherein the echo processing device also comprises circuitry for obtaining information representing the distance between at least one loudspeaker of the said at least one communication device and the microphone of the other communication device.

8. (Currently Amended) ~~Echo processing~~ The device according to claim 7, wherein the signal processing arrangement is arranged for weighting the information representing the broadcasted signal of the communication device by coefficients associated with information representing the distance between at least one loudspeaker of the said at least one communication device and the microphone of the other communication device.

9. (Currently Amended) ~~Echo processing~~ The device according to claim 8, wherein the communication device comprises a plurality of loudspeakers coupled with the at least one communication device so that (a) the signals reproduced by each loudspeaker of the at least one communication device are weighted by respective coefficients representing the distances between each loudspeaker of the communication device and the microphone of the other communication device and (b) the weighted signals are added.

10. (Currently Amended) ~~Echo processing~~ The device according to claim [[6]]28, wherein the circuitry is arranged for establishing the number of other communication devices and for establishing the number of loudspeakers of the other communication devices.

11. (Currently Amended) ~~Echo processing~~ The device according to claim 10, wherein the echo processing device also comprises:

a generator for generating at least one predetermined audible signal,

a receiver for receiving, by ~~means~~way of the connection with at least one other device, information representing the reception of the audible signal by at least one other device,

the signal processing arrangement being arranged for determining the distance between a loudspeaker of the said communication device and the microphone of at least one other communication device.

12. (Cancelled)

13. (Currently Amended) Echo processing method according to claim [[12]]29, wherein the received information representing at least one broadcast signal of at least one other communication device is weighted by a coefficient representing the distance between a loudspeaker of the at least one other communication device and the microphone of the communication device.

14. (Previously presented) Echo processing method according to claim 13, wherein the picked up weighted signal is taken into account in a reference echo control signal of the communication device.

15. (Cancelled)

16. (Currently Amended) Echo processing method according to claim [[15]]30, wherein the method also comprises obtaining information representing the distance between at least one loudspeaker of the at least one communication device and the microphone of the other communication device.

17. (Previously Presented) Echo processing method according to claim 16, wherein the echo processing method also comprises weighting the information representing the broadcast signal of the communication device by coefficients associated with the information representing the distances between at least one loudspeaker of said at least one communication device and the microphone of the other communication device.

18. (Previously Presented) Echo processing method according to claim 16, wherein (a) the communication device comprises a plurality of loudspeakers, and (b) the signals reproduced by each loudspeaker of the said at least one communication device are weighted by respective coefficients representing the distance between each loudspeaker of the communication device and the microphone of the other

communication device, and (c) the weighted signals are added.

19. (Currently Amended) Echo processing method according to claim [[15]]30, wherein the echo processing method also comprises determining the number of other communication devices and determining the number of loudspeakers of the other communication devices.

20. (Previously Presented) Echo processing method according to claim 19, wherein the echo processing method also comprises:

generating at least one predetermined audible signal,

receiving, via a connection, distinct from said telecommunication network, with at least one other device, information representing the reception of the audible signal by the at least one other device, and

determining the distance between the loudspeaker of the said communication device and the microphone of at least one other communication device.

21. (Currently Amended) An information medium storing a computer program for causing a computer to perform the steps of claim [[12]]29.

22. (Currently Amended) An information medium storing a computer program for causing a computer to perform the steps of claim [[15]]30.

23. (Currently Amended) A system including a plurality of the devices of claim [[1]]27 wherein the dedicateddistinct connection is arranged for coupling a wave including the information and an electric component, and the local communication devices are close enough to each other that acoustic waves are coupled between the microphones and loudspeakers of the local communication devices.

24. (Currently Amended) A system including a plurality of the devices of claim [[6]]28 wherein the dedicated distinct connection is arranged for coupling a wave including the information and an electric component, and the local communication devices are close enough to each other that acoustic waves are coupled between the microphones and loudspeakers of the local communication devices.

25. (Currently Amended) The method of claim [[12]]29 wherein the method is performed at each of the local communication devices, the dedicated distinct connection couples a wave including the information and an electric component, and the location communication devices are close enough to each other that acoustic waves are coupled between the microphones and loudspeakers of the location communication devices.

26. (Currently Amended) The method of claim [[15]]30 wherein the method is performed at each of the local communication devices, the dedicated distinct connection couples a wave including the information and an electric component, and the location communication devices are close enough to each other that acoustic waves are coupled between the microphones and loudspeakers of the location communication devices.

27. (New) A communication device for connection to a telecommunication network for communicating with at least one distant interlocutor, having at least one loudspeaker and at least one microphone,

the communication device comprising:

echo processing means for attenuating coupling due to a signal emitted by at least one loudspeaker of at least one other communication device situated close to said communication device, said echo processing means including:

(a) a receiver for receiving from said at least one other communication device information representative of a signal emitted by at least one loudspeaker of said at least one other communication device, the receiver being arranged to be responsive to the information via a digital connection distinct from said telecommunication network, all the communication devices being situated in the same premises and connected to one another through digital connections,

- (b) means for obtaining a piece of information representative of a distance separating a loudspeaker of one of said at least one other communication device from a microphone of said communication device,
- (c) means for determining weighting coefficients to be applied to each of the broadcasted signals reproduced by each of the loudspeakers of said at least one other communication device, taking account of said pieces of information representative of the distance,
- (d) an audio interface for:
 - (i) weighting said of at least one broadcasted signal received by a microphone of said communication device, using said weighting coefficients and thus providing a signal S_{xa} corresponding to the adding of the signals broadcasted by the other telecommunication devices;
 - (ii) adding said signal S_{xa} to an input signal received by one of said at least one loudspeaker of said communication device, thus providing for a reference signal of said one loudspeaker,
- (e) an echo control module modifying a signal Y_{1n} picked-up by one of said at least one microphone of the communication device, as a function of said reference signal, and providing a modified signal Y_{2n} ; and
- (f) an interface for transferring the modified signal, with a view to a transmission thereof over the telecommunication network.

28. (New) An echo processing device adapted to be coupled to a communication device adapted to be connected to a telecommunication network for communicating with at least one distant interlocutor, having at least one loudspeaker and at least one microphone, the echo processing device being arranged to attenuate coupling due to a signal emitted by at least one loudspeaker of at least one other communication device situated close to said communication device, said echo processing device including:
a receiver for receiving from said at least one other communication device information representative of a signal emitted by at least one loudspeaker of said at least one other communication device, the receiver being arranged to be responsive to

the information via a digital connection distinct from said telecommunication network, all the communication devices being situated in the same premises and connected to one another through digital connections,

a processor arrangement for: (a) obtaining a piece of information representative of a distance separating a loudspeaker of one of said at least one other communication device from a microphone of said communication device, (b) determining weighting coefficients to be applied to each of the broadcasted signals reproduced by each of the loudspeakers of said at least one other communication device, taking account of said pieces of information representative of the distance, (c) weighting said of at least one broadcasted signal received by a microphone of said communication device, using said weighting coefficients and thus providing a signal S_{xa} corresponding to the adding of the signals broadcasted by the other telecommunication devices; (d) adding said signal S_{xa} to an input signal received by one of said at least one loudspeaker of said communication device, thus providing a reference signal of said one loudspeaker, (e) an echo control module modifying a signal Y_{1n} picked-up by one of said at least one microphone of the communication device, as a function of said reference signal, and providing a modified signal Y_{2n} ; and (f) an interface for transferring the modified signal, with a view for transmission thereof over the telecommunication network.

29. (New) A method of processing an echo in a communication device for connection to a telecommunication network that communicates with at least one distant interlocutor, having at least one loudspeaker and at least one microphone, the echo processing attenuating the coupling due to a signal emitted by at least one loudspeaker of at least one other communication device situated close to said communication device, said echo processing method including:

(a) receiving from said at least one other communication device information representative of a signal emitted by at least one loudspeaker of said at least one other communication device, the information being received via a digital connection distinct from said telecommunication network, all the communication devices being situated in the same premises and connected to one another

through digital connections,

- (b) obtaining a piece of information representative of a distance separating a loudspeaker of one of said at least one other communication device from a microphone of said communication device,
- (c) determining weighting coefficients to be applied to each of the broadcasted signals reproduced by each of the loudspeakers of said at least one other communication device, taking account of said pieces of information representative of the distance,
- (d) weighting said of at least one broadcasted signal received by a microphone of said communication device, using said weighting coefficients and thus providing a signal S_{xa} corresponding to the adding of the signals broadcasted by the other telecommunication devices;
- (e) adding said signal S_{xa} to an input signal received by one of said at least one loudspeaker of said communication device, thus providing for a reference signal of said one loudspeaker,
- (f) modifying a signal Y_{1n} picked-up by one of said at least one microphone of the communication device, as a function of said reference signal, and providing a modified signal Y_{2n} ; and
- (g) transferring the modified signal, with a view to a transmission thereof over the telecommunication network.

30. (New) Method of processing an echo between at least two local communication devices close to one another and coupled by a telecommunication network in order to attenuate, in a signal picked up by at least one microphone of another of said at least two local communication devices including at least one microphone, the components of a signal broadcast by at least one loudspeaker of at least one communication device, the echo processing method comprising the steps of:

- (a) obtaining a piece of information representative of a distance separating a loudspeaker of one of said at least one other communication device from a microphone of said communication device,

- (b) determining weighting coefficients to be applied to each of the broadcasted signals reproduced by each of the loudspeakers of said at least one other communication device, taking account of said pieces of information representative of the distance,
- (c) weighting said of at least one broadcasted signal received by a microphone of said communication device, using said weighting coefficients and thus providing a signal S_{xa} corresponding to the adding of the signals broadcasted by the other telecommunication devices;

transferring, by use of a dedicated connection with at least one of the other local communication devices, the information obtained, the dedicated connection being distinct from said telecommunication network.